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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,972	02/15/2001	Mary Chan-Park	26822-0006	5444

25213 7590 05/21/2003

HELLER EHRMAN WHITE & MCAULIFFE LLP  
275 MIDDLEFIELD ROAD  
MENLO PARK, CA 94025-3506

EXAMINER
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CHACKO DAVIS, DABORAH

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 05/21/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-10

<b>Office Action Summary</b>	<b>Applicati n No.</b>	<b>Applicant(s)</b>	
	09/784,972	CHAN-PARK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Daborah Chacko-Davis	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29,40-43 and 46-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29,40-43, and 46-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of claims 1-29, 40-43, and 46-52 in Paper No. 9 is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-2, 12-19, 46, are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent No. 6,018,383 (Dunn et al).

Dunn, in the abstract, in col 5, line 42-67, in col 6, lines 1-15, in col 7, lines 12-26, in col 8, lines 48-67, and in col 9, lines 1-9, discloses a process for patterning structures on electronic modules comprising providing a support web (flexible material substrate)

Art Unit: 1756

with a layer of photosensitive material on the substrate continuously, providing a mask with a mask pattern, wherein the mask is a continuous strip (loop) (with patterns of transparent portions and opaque portions) that is selectively illuminated to form a corresponding structure of the mask pattern onto the substrate in a continuous manner, aligning the mask strip with the flexible substrate (reference 34) such that a portion of the mask is parallel to a portion of the substrate (see figure 1) in the same direction, and rolling the flexible mask in synchronized motion (relatively or with same velocity) with the flexible substrate (see figure 2) (claim 1). Dunn, in col 6, lines 1-20, and lines 56-67, and in col 7, lines 1-11, discloses the mask is rolled such that a portion of the mask and a portion of the substrate are substantially parallel, and rolling in the same velocity (a common drive motor assembly for the mask and the substrate) and in the same direction (see figures 1, and 2).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-11, 20-29, 40-43, and 47-52, are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,018,383 (Dunn et al) in view of U. S. Patent Application Publication No. 2002/0029969 (Yager et al).

Dunn is discussed in paragraph no. 3.

The difference between the claims and Dunn is that Dunn does not disclose steps (a), (b), (c), (d), and (e) of claim 3, steps (a), (b), (c), (d), and (e) of claim 4, steps (a), and (b) of claim 5, steps (a), (b), (c), and (d) of claim 6, steps (a), (b), and (c) of claim 7, claim 8, steps (a), (b), (c), and (d) of claim 9, and claims 10-11, claims 20-29, and claims 47-52.

Yager, in the abstract, in [0013], in [0025], [0026], [0027], in [0029], and in [0039], [0040] and in figures 1B, and 2B, discloses that the support web (movable separation matrix on a solid support) comprises a plurality of conductor lines (wires), and that the radiation sensitive composition is radiation curable material such as positive photoresists are coated over the conductor lines, and the structures are disposed as an array of microcups (reference 2, with microcup walls) with a top opening for a display device. Yager, in [0038], in [0040], [0041], [0042], and [0043] discloses that the mask pattern corresponds to the matrix formed in the substrate and the image of the microcups is projected to the resist coated substrate (resist coated extended series of micro-electrodes) through radiation, one subset of microcups at a time, wherein the positive resist is selectively exposed and cured, and developed, and the uncured portions are removed (stripped) to form the channels in the matrix (reference 2). Yager, in [0047] discloses that the substrate is patterned to form a plurality of arrays of microcups, by patterning each chip at a time (to form first, second, third etc subsets of microcups). Yager, in [0030], [0032], [0033], [0034], [0035], [0047], discloses that the microelectrodes formed are filled with gel matrix (electrophoretic display pigments), and are then closed with a top laminate (protective sheet). Yager, in [0029], in [0038],

Art Unit: 1756


[0039], and [0040], discloses that the conductor lines (wires) are transparent to visible light.

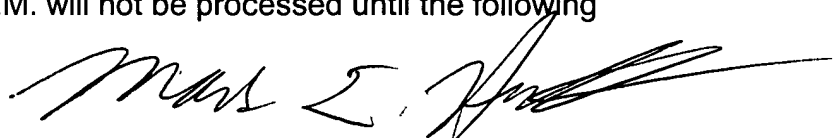
Therefore, it would be obvious to a skilled artisan to modify Yager by employing the method of using the moveable extended series of micro-electrodes on the support web of Yager in the photolithographic tool of Dunn because Dunn, in col 4, lines 36-62, in col 7, lines 12-26, in col 8, lines 64-67, in col 9, lines 1-9, discloses that rolling a flexible substrate in synchronous motion with the photomask with simultaneous deposition of the resist on the substrate, followed by exposure results in increased throughput with almost any desired resolution, the provision of exposing a helical substrate in one continuous helical scan, and significantly lowering the cost per exposure of the electronic module.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daborah Chacko-Davis whose telephone number is (703) 306-5923. If the examiner is unavailable, you may contact her supervisor, Mark F. Huff at (703) 308-2464. FAX communications should be sent to the appropriate FAX number; (703) 872-9311 for After Final Responses only or (703) 872-9310 for all other responses. FAXES received after 4:00 P.M. will not be processed until the following business day.

dcd

  
May 19, 2003.



**MARK F. HUFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700**